

**Paducah Gaseous Diffusion Plant  
Citizens Advisory Board  
Meeting Minutes  
November 20, 2003**

The November 20, 2003 Citizens Advisory Board (CAB) meeting was held at the CAB office in Paducah, Kentucky at 5:30 p.m.

**Board members present:** Byron Forbus, Ricky Ladd, Rebecca Lambert, Linda Long, Douglas Raper, John Russell, Dorothy Starr, and Bill Tanner

**Board member absent:** Richard Dyer, Fred Jones, Vicki Jones, and Jim Smart

***Ex Officio* members and related regulatory agency employees present:** Jon Maybriar, and Vicki Voisard, Kentucky Department for Environmental Protection; Gaye Brewer, Jamie Lowe, Tuss Taylor, and Lori Veal, Kentucky Division of Waste Management; Tim Kreher and Brad Pendley, Kentucky Department of Fish and Wildlife Resources; Carl Froede Jr., and David Williams, U.S. Environmental Protection Agency

**The Deputy Designated Federal Official present:** William Murphie

**The DOE Federal Coordinator present:** David Dollins

**DOE-related employees present:** Greg Bazzell, Tracey Brindley, Bryan Clayton, Greg Cook, Kim Crenshaw, Jim Ethridge, John Farrell, Greg Felts, Bruce Ford, R. D. George, Mike Malloy, John Morgan, Kendra Payne, Bruce Phillips, Barry Swift, Joe Tarantino, Glenn VanSickle, Debbie Wattier, and Tom Wheeler

**Public:** Tony Babb, Mark Deathridge, Mark Donham, Bruce Ehleringer, Ruby English, Charles Jurka, Vicki Jurka, Dan Kearney, Merryman Kemp, Ronny Lamb, Rhonda McCorry, Jeff Neff, Demetra Nelson, Kevin Poor, Al Puckett, Michael Ryan, and Ken Wheeler

## Agenda

Tanner called the meeting to order at 6:00 p.m. Kay asked if there were any proposed modifications to the agenda. There were no modifications. **The Board adopted the agenda by consensus.**

## Minutes

Kay asked if there were any proposed modifications to the draft October minutes. There were no modifications. **The Board approved the minutes by consensus.**

### Deputy Designated Federal Official's Comments [\(click here to view presentation\)](#)

Murphie reported that the Agreed Order and the Letter of Intent (LOI) has enabled the projects to move forward and that there is a significant increase of activities at the Paducah site.

Murphie said the Scrap Metal removal project has shipped all of the aluminum ingots to the Nevada Test Site and that 6,000 of 44,000 tons have been processed from the scrap yard.

Murphie stated that the Treatability Study for the C-400 Groundwater Source Removal operational phase is complete and the final report is being prepared. He reported that more than 11 tons of trichloroethylene (TCE) was removed during operation. He said the Proposed Plan is being drafted and will include the proposal for the next phase of removal.

Murphie said potentially fissile material has been removed from the C-410 Decontamination and Decommissioning complex and scrap metal is continuously being removed and staged for disposition.

Murphie reported that there has been aggressive characterizing and disposing of U.S. Department of Energy (DOE) Material Storage Area (DMSA) waste. He said 45,000 ft<sup>3</sup> of waste has been disposed of to date. He stated that 479,000 ft<sup>3</sup> of 800,000 ft<sup>3</sup> of material has been characterized through October and less than 0.01% has been found to have any hazardous waste.

Murphie stated that regarding Legacy Waste disposition, 902 m<sup>3</sup> of mixed low level waste, corrosives, and polychlorinated biphenyl transporters have been shipped for treatment and disposal in Fiscal Year (FY) 2003 and an additional 600 m<sup>3</sup> is being prepared for disposal.

Murphie said the Surge Basin construction and ditch excavation is underway for the North-South Diversion Ditch. He reported that 8 of 17 remedial units have been

excavated. He stated that the Agreed Order resolved the soil disposal obstacle and that the Section 1 Workplan is pending regulatory approval.

Murphie reported that the C-746-S&T Landfill Investigation fieldwork is scheduled for Spring 2004 and the Southwest Plume Investigation fieldwork is scheduled for Summer 2004.

Murphie said the Site Management Plan (SMP) was issued to the Commonwealth of Kentucky and to the U.S. Environmental Protection Agency (EPA) for review.

Murphie stated the FY04 Budget has been approved by the Senate and the House covering the clean-up activities. He said it did include an additional amount of funds for the Paducah site and provides additional funding for the Depleted Uranium Hexafluoride project. Murphie said the budget has now gone to the President for signature.

Murphie reported there would be a Senate hearing at 9 a.m., December 6 at the Information Age Park regarding cleanup at the Paducah Site. He said DOE, the Commonwealth of Kentucky, and EPA would testify.

Tanner asked Murphie the status of the three recommendations the Board had issued to DOE at the October meeting. Murphie said a response from DOE would be given before the January meeting.

### **Federal Coordinator Comments**

Dollins reported that changes are being made for the CAB to be more involved at the task force level. He said he believes the task forces need to become more involved in the decision making process to allow sufficient time for recommendations to flow out of the task forces.

### **Ex-Officio Comments**

Froede introduced Williams as the new EPA ex-officio for the Board. He reported that EPA is reviewing the SMP and the comments are due in two weeks on the Southwest Plume Sampling and Analysis Plan.

Kreher reported Pendley will be replacing Jim Lane as the Frankfort point of contact for the Kentucky Department of Fish and Wildlife Resources (KDFWR) regarding the Paducah Gaseous Diffusion Plant (PGDP). He stated Pendley would be attending CAB Board meetings. Kreher said he would get Pendley's contact information to Payne for distribution.

Russell said the Kentucky Division of Waste Management has issued a public notice regarding DOE's request for variance of land disposal restrictions. He said the notice pertains to a variance of the contained-in rule. Russell stated he is concerned with two

conflicting statements made on the health-based level of trichloroethane. Kay suggested that Taylor and Russell reach clarification on this issue and report back to the Board.

### **Public Comments and Questions**

Donham asked Froede about EPA's position regarding the Agreed Order. Froede said the EPA was not a negotiating party in the agreement process. He said a legal review has been obtained and the EPA has no role or official comment regarding the Agreed Order. Donham asked when it is time for actions that are allowed or called for in the Agreed Order to be implemented that are different from the existing Federal Facility Agreement (FFA), and EPA will be called on to sign and approve it, how is the EPA going to address that procedure. Froede said the Agreed Order deals with disposal options for DMSAs, the U-Landfill, and DUF<sub>6</sub> processing. He said the terms are consistent with the Resource Conservation Recovery Act and Kentucky regulations. He said if the FFA is affected, modifications or negotiations may be required, but at this time there is no need for modifications.

English reported that the University of Kentucky has provided a grant to conduct testing on garden vegetables within a two mile radius of the plant. She said the testing would include an analysis for chemicals, metals, and radionuclides. She stated the testing will begin in the Spring and she will keep the Board posted on the results.

### **Presentation of the Six-Phase Heating Treatability Study ([click here to view presentation](#))**

Tarantino presented to the Board a post-operational review of the Six-Phase Heating Treatability Study.

### **Questions**

Tanner stated a recommendation had been submitted to DOE that the Six-Phase Heating Treatability Study include a Lessons Learned section in the document. He said there were problems with the carbon filters allowing air emissions that were higher than anticipated. He asked if this was included in the final report and if future use was addressed. Tarantino said the report does address the air emission limits, but that a different technology would be used instead of carbon, if the system is implemented full scale.

Russell asked if the Proposed Plan suggests Six-Phase Heating as remedial action for C-400. Tarantino said it would be for groundwater and soil treatment. Russell asked if a task force would be working this issue. Dollins stated the Water task force has been following the Six-Phase Heating system pilot project and would have adequate time to comment on the Proposed Plan and prepare a recommendation if necessary.

## **Public Comments and Questions**

Jurka said there was concern that potential hazards exist after the electrodes were removed during the Six-Phase Heating Treatability Study. She also said similar types of testing were conducted at the Savannah River site that should have been compared with the Paducah site. She stated that she was concerned with the air emissions of radionuclides that occurred during the pilot project. She said testing was done near a uranium burial ground where chlorinated compounds were removed and that could have resulted in emissions of dioxin type materials. Tanner said the electrodes were shut off and 48 hours later the exhaust fans were also shut off and the ground and water were still extremely hot, well above the volatilization point for TCE. He said he would like to know how this would be addressed in future projects. Tarantino said he was not aware of any air emissions after shut down. He said the ground was heating at 20 feet below ground, not on the surface.

## **Agreed Order**

Tanner asked why there were two separate Agreed Orders, one exclusively for the DUF<sub>6</sub> Conversion Facility. Taylor said the Commonwealth of Kentucky attorneys decided DUF<sub>6</sub> should be kept separate based on waste management and environmental restoration issues and because it is handled differently under the DOE program.

Tanner said the LOI states that DOE and its contractors agree to take all necessary steps to accelerate risk reduction and to apply as large a percentage as possible of the Paducah site's budget to accelerated cleanup as a continuing and ongoing process. Tanner asked who decides what percentage of the budget goes to the individual projects. Murphie stated that DOE has the final authority for funding decisions and management of its budget, but the FFA requires DOE to consult EPA and the Commonwealth of Kentucky in the planning process. He said the estimated cost of implementing any remedy is evaluated using the Comprehensive, Environmental Response, Compensation and Liability Act (CERCLA) criteria and is allocated accordingly.

Raper stated the LOI mentions actions identified in the Top-to-Bottom Review. He asked what actions are identified in this review. Murphie said the Top-to-Bottom Review discusses mitigating immediate risks and to prioritize work scope to provide the greatest risk reduction.

Ladd asked if all of the cylinders that DOE entitles are covered under the Agreed Order. Murphie said all cylinders are covered except the ones owned by USEC. Taylor said the Agreed Order allows DOE to accept additional cylinders.

## Site Management Plan

Tanner said the Site Management Plan states that the small communities of Grahamville and Heath are located approximately 2 miles east of the plant. He said this is misleading to people that are not familiar with the site because there are houses in Grahamville located within 2000 feet of the security fence. Murphie said the comment was noted.

In regards to the description of the S&T Landfills, Russell said it is well known that the T-Landfill existed many years as an open dump site. He said that the burial ground under the T-Landfill should be addressed in the description. Murphie said that the area underneath the T-Landfill is referred to as the P-Landfill and is addressed in the Burial Grounds Operable Unit. Morgan said the P-Landfill is referred to as SWMU 145.

Russell stated the scope assumptions for Sections 3, 4, and 5 of the NSDD include hot-spot removal of ~4,200 linear feet of soils and sediment. He asked if this whole area would be dredged. Murphie said no, just where the hot spots were located. Russell said the wording "when necessary" should be added for clarification.

Russell stated the scope assumptions assume excavation of ~ 12,000 yd<sup>3</sup>, with 90 percent disposal in the U-Landfill. He said he is concerned that most of the waste resulting from cleanup projects will be disposed in the U-Landfill. Murphie said the 12,000 yd<sup>3</sup> is a baseline scope assumption for excavation

Puckett said there was a ten ton cylinder of neptunium at the PGDP that was sold in 1954. He said he would like to know whom it was sold to and where the money went. Murphie said he suspected the only customer then would have been the Department of Defense or DOE and it could have been for internal use but at that time there was not a commercial industry for nuclear materials. Murphie said there are DOE historians that could investigate this issue if more specifics could be referenced. He said he does not know why neptunium would be at the Paducah site, but he will make an effort to provide an answer.

Jurka said with regards to Sections 3, 4, and 5 of the NSDD, the maps show a variety of radionuclides that have been identified. She said if the hot spots that contain radionuclides are to be disposed of in the C-746-U Landfill, even though the individual amount shown is minimal under regulatory issues, cumulatively there may be a concern of disposition in the landfill. She asked how this was considered. Murphie stated that the criteria for the landfill assume cumulative dose or risk effectively as for the maximized ultimate limit of the landfill. Russell said there is a limit on the total amount of radioactive material that can be put in a landfill. Murphie said that total quantity and isotopic specific limit per unit are part of the process for control. Jurka said she believed that there was milligram dosage that was acceptable and if all of the material was sent to the U-Landfill it was likely that the dosage would be exceeded. Murphie said the U-Landfill exposure points are considered in the risk assessment.

Donham asked if the SMP has been adopted or if it is available for public comment. Froede said it is under regulatory review and DOE is providing the CAB the opportunity to comment and that there will not be a public comment period. Donham asked for an explanation of the relationship between the Agreed Order and the SMP. Murphie said the LOI and the Agreed Order contain pieces of the operable unit strategies that are consistent with the SMP.

## **Administrative Issues**

### **Review of Workplan**

Tanner asked that the Conflict of Interest discussion be moved to February, after new Board members may be appointed.

Cook reported that the Annual Site Environmental Report will be issued in December 2003. He stated that this report would be mailed to all Board members at the same time it is mailed to the regulators. Froede asked if this would be available on compact disc. Cook said it would be available on the web.

### **Review of January's Agenda**

Tanner suggested moving the task force and subcommittee reports to the presentation portion of the agenda. Russell said that actions need to be taken in the presence of the public. Kay suggested moving the task force reports but leaving the subcommittee reports where they are since they deal with internal business of the Board. The Board agreed.

Tanner said a spring retreat is scheduled for March 5 and 6 at Lake Barkley to establish the Workplan and to get the SMP milestones assigned to task forces for discussion in a more timely manner. Tanner said a preliminary head count was needed for reservations. Forbus, Ladd, Long, Raper, Russell, Starr, and Tanner said that they plan to attend if their schedules permit.

### **Action Items**

All action items were closed at this time.

### **Task Force and Subcommittee Reports**

#### **Water Task Force**

Tanner reported that all bags are being sampled for TCE and screened for volatiles and radionuclides at the NSDD. He said 650 out of 1300 bags have been sampled and all have been non-detect for TCE. He stated a site-wide water balance presentation would be made to the task force in January. Tanner said the Five-Year Review has also been

discussed regarding the Northwest Plume's highest concentration of TCE bypassing the Pump and Treat system, which is under review by DOE.

### **Long Range Strategy/Stewardship**

Payne said a draft of the Annual Report is provided in the Board packets. She said comments need to be returned to her by December 5.

Tanner said the End-State Vision is being researched for recommendations regarding the limited reindustrialization of the site and use of concrete modeling of process buildings instead of a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) on-site waste disposal facility. Murphie said this issue was discussed at the Paducah Area Community Reuse Organization meeting and he suggested a member of the local zoning and planning Board be invited to the next Long Range meeting. Raper suggested inviting Steve Doolittle. Raper asked Murphie the status of the Risk Based End States document due to Geiser. Murphie said he had been given a certain amount of leeway from headquarters in terms of deliverables because of the transition of his office and staff. Raper asked who would be the point of contact for this issue. Murphie said no one has been appointed at this time.

Tanner said there would be a Chairs conference call held on Tuesday, November 25. He stated he would be presenting two recommendations to the other sites. He said the first recommendation would request that long term stewardship be included in all workplans to ensure action towards the final goal. He stated the second recommendation would suggest that DOE implement technology sharing between sites. Tanner reported a draft letter to Under Secretary Robert Card from other sites asking for all of the Site Specific Advisory Boards (SSABs) consideration was included in the Board packet. He said the letter recommends funding of SSABs and the transition of sites from environmental management to the legacy management phase. He said that he would like to show support of the other SSABs by signing the letter. The Board agreed.

### **Nomination, Membership, and Public Involvement**

Tanner reported eleven membership applications were received and the Nomination, Membership, and Public Involvement subcommittee had interviewed and ranked the top six applicants. He stated the applicants were asked questions concerning conflict of interest, consensus building, and the amount of time they could dedicate to the Board. He said the Board packet contains the ranking of membership for all eleven applicants. **The Board approved the ranking of applicants for recommendation of membership to DOE by consensus.**

Tanner said the New Member Handbook is being developed to provide to all members. He stated an orientation would be conducted in January if new members were appointed. Murphie suggested a site tour also be organized for all new members.



## **Waste Operations Task Force**

Russell presented to the Board the NSDD Sections 3, 4, and 5 Sampling and Analysis Plan recommendation.

Froede inquired about the quality of the data. Russell said the data was from a single study that was conducted in 1998. Froede expressed his support of the recommendation. Tanner said he would like to compliment DOE on the data being provided to the CAB in a timely manner.

Russell reported the Waste task force would like to request that a recommendation be made to DOE to incorporate additional sampling for Section 5 into the NSDD Sections 3, 4, and 5 D1 Sampling and Analysis Plan. Kay proposed that the two meeting voting requirement be waived and asked if there were any objections. There were no objections.

**The Board approved the recommendation to DOE by consensus.**

Russell said the Waste task force has requested a Burial Grounds Operable Unit presentation for January.

## **Community Concerns**

The Community Concerns committee did not meet in November.

## **Executive Committee**

Tanner reported the Executive committee will meet monthly on the Tuesday following Board meetings at 2:00 p.m. He said the meeting for this month would be at 1:00 because of the Chairs conference call.

Tanner suggested the existing policy of the two meeting voting requirement previously adopted by the Board be revised. He requested that an issue be introduced and approved at one meeting with the stipulation that at least two or more members could request to hold the issue over to the next Board meeting if needed. **The Board approved the modification of this policy by consensus.**

Tanner reported the Executive committee would be revising the Workplan at the first of the year. He said January meeting packets will be sent out one week prior to the meeting. He also stated all recommendations will be followed by a press release. Tanner reported that the support staff contract issue will be discussed on the Chairs conference call and that proposed changes will be in effect by October 1, 2004.

## **Final Comments**

Payne reported the Board and all task forces/subcommittees will not meet in December.

Ladd asked if there was any news on the Request for Proposal (RFP) of the infrastructure contract. Murphie said the infrastructure RFP was imminent and the environmental cleanup RFP will soon follow.

Murphie said he would like to follow up with the task forces regarding the three recommendations issued to DOE in October. He said before DOE issues a response, he would like the opportunity to talk to the task forces to discuss the recommendations further. He said as a result of the discussion a revised recommendation may be submitted, DOE can reply respecting the outcome of the discussion, or DOE may disagree. Tanner said the group would be available to meet in December.

The meeting adjourned at 9:00 p.m.